



Abstract of the Disclosure

A method of integrated resin preconditioning and hydrogen peroxide purification is provided. The method includes preconditioning a resin by washing the resin with deionized water to produce a washed resin, and contacting an effective amount of a preconditioning hydrogen peroxide solution with the washed resin to remove impurities from the washed resin, thereby producing a preconditioned resin. The method further includes passing a hydrogen peroxide solution to be purified through a bed of the preconditioned resin to form a hydrogen peroxide solution having a TOC content lower than a TOC content of the hydrogen peroxide solution to be purified, and passing the hydrogen peroxide solution having a TOC content lower than the TOC content of the hydrogen peroxide solution to be purified through one or more ion-exchange resin beds or directing the hydrogen peroxide solution having a TOC content lower than the TOC content of the hydrogen peroxide solution to be purified to a point of use in a semiconductor manufacturing facility the. The preconditioning hydrogen peroxide solution does not pass through the ion exchange resin beds and is not directed to the point of use.